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EXAMINER

CHOJNACKI, MELLISSA M

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 06/14/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

224

Office Action Summary

Application No.

10/020,856

Applicant(s)

LEVKOFF ET AL.

Examiner

Melissa M Chojnacki

Art Unit

2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6-7.

- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2100

DETAILED ACTION

Specification

1. The Specification is objected to because of the following informalities:

Trademarks (e.g. "AutoCAD") are used in non-capital letter format in specifications.

The use of the trademarks AUTOCAD, MICROSTATION, LIGHTOLIER and MICROSOFT have been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 8-12, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bentley et al. (U.S. Patent No. 6,341,291) in view of Freeman (U.S. Patent No. 6,134,557).

As to claim 1, Bentley et al. teaches a method of preparing a design file or drawing file for a project (See abstract, column 1, lines 64-66), each design file or drawing file including a plurality of building component data elements (See column 1, lines 66-67), each representing a specific building component (See column 1, line 67; column 2, lines 1-3), each unique building component having a unique building component identifier (See abstract; column 2, lines 1-3), the method comprising:

(a) selecting one or more building component data elements for the design file or drawing file (See abstract; column 2, lines 44-49; column 5, lines 18-23); and

(b) storing the unique building component identifier of each selected building component data element in a project database (See column 15, lines 17-29).

Bentley et al. does not teach each building component data element comprising physical attributes of the data element.

Freeman teaches materials and supplies ordering system (See abstract), in which he teaches each building component data element comprising physical attributes of the data element (See column 6, lines 43-47, where "attributes" is read on "material name or description").

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Bentley et al., to include each building component data element comprising physical attributes of the data element.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bentley et al., by the teachings of Freeman because each building component data element comprising physical attributes of the data element would open the opportunity for a more advanced and efficient means to order supply materials from large merchants for construction projects (See Freeman, column 1, lines 65-67).

As to claim 2, Bentley et al. as modified, teaches wherein each building component data element represents a vendor-specific building component, the project database thereby containing the contents of the building components in the project identified by vendor (See Bentley et al., abstract; column 4, lines 64-67; column 5, lines 1-3, lines 46-55; also see Freeman, abstract).

As to claim 3, Bentley et al. as modified, teaches wherein step (a) further comprises selecting the one or more building component data elements for the design file or drawing file from a library of vendor-specific building component data elements (See Bentley et al., abstract; column 2, lines 44-49; column 5, lines 18-23; also see Freeman, abstract, where "library" is read on "categorization table"; column 1, lines 4-13).

As to claim 4, Bentley et al. as modified, teaches maintaining a component database of vendor-specific building components, each building component including

one or more non-physical attributes of the building component (See Bentley et al., abstract; column 4, lines 64-67; column 5, lines 1-3, lines 46-55; also see Freeman, column 6, lines 43-47, where “attributes” is read on “material name or description”).

As to claim 5, Bentley et al. as modified, teaches wherein the unique building component identifier is stored in a comment field of the building component data element (See Bentley et al., abstract; column 1, line 67; column 2, lines 1-7).

As to claim 8, Bentley et al. as modified, teaches wherein the unique building component identifier of each selected building component data element is stored in a project database that is separate from the design file or drawing file (See Bentley et al., abstract; column 4, lines 64-67; column 5, lines 1-3, lines 46-55; also see Freeman, abstract).

As to claim 9, Bentley et al. teaches (a) assigning a unique building component identification number (UCID) to a vendor specific building component (See abstract; column 2, lines 1-3; column 15, lines 17-29);

(b) storing the UCID in a comment field of a building component data element, thereby providing any design or drawing file that uses the building component data element with sufficient information to identify building components in the design or drawing file on a -vendor-specific level (See abstract; column 2, lines 1-3, lines 12-19, lines 44-49; column 15, lines 17-29).

Bentley et al. does not teach a method of identifying a vendor-specific building component data elements by vendor.

Freeman teaches materials and supplies ordering system (See abstract), in which he teaches a method of identifying a vendor-specific building component data elements by vendor (See abstract; column 1, lines 5-8; column 6, lines 43-47).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Bentley et al., to include a method of identifying a vendor-specific building component data elements by vendor.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bentley et al., by the teachings of Freeman because a method of identifying a vendor-specific building component data elements by vendor would open the opportunity for a more advanced and efficient means to order supply materials from large merchants for construction projects (See Freeman, column 1, lines 65-67).

As to claim 10, Bentley et al. teaches the design file or drawing file including a plurality of building component data elements (See abstract, column 1, lines 64-67; column 2, lines 44-49; column 5, lines 18-23);

(a) parsing data of the building component data elements to obtain the vendor-specific UCID's from the comment fields (See abstract; column 2, lines 1-3, lines 12-19, lines 44-49; column 6, lines 60-67; column 7, lines 1-3; column 15, lines 17-29);
and

(b) creating an inventory of the contents of the design file or drawing file from any UCID's located in the comment fields (See Bentley et al., abstract, where "inventory" is read on "history"; also see column 10, lines 24-31).

Bentley et al. does not teach a method of determining the contents of a design file or drawing file on a vendor-specific basis, at least some of the building component data elements having a vendor-specific unique building component identification number (UCID) stored in a comment field of the building component data element.

Freeman teaches materials and supplies ordering system (See abstract), in which he teaches a method of determining the contents of a design file or drawing file on a vendor-specific basis (See column 1, lines 5-7), at least some of the building component data elements having a vendor-specific unique building component identification number (UCID) stored in a comment field of the building component data element (See abstract; column 2, lines 7-13).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Bentley et al., to include a method of determining the contents of a design file or drawing file on a vendor-specific basis, at least some of the building component data elements having a vendor-specific unique building component identification number (UCID) stored in a comment field of the building component data element.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bentley et al., by the teachings of Freeman because a method of determining the contents of a design file or drawing file on a

Art Unit: 2175

vendor-specific basis, at least some of the building component data elements having a vendor-specific unique building component identification number (UCID) stored in a comment field of the building component data element would open the opportunity for a more advanced and efficient means to order supply materials from large merchants for construction projects (See Freeman, column 1, lines 65-67).

As to claim 11, Bentley et al. as modified, teaches maintaining a project database that contains the inventory of the contents of the design file or drawing file (See Bentley et al., abstract, where “inventory” is read on “history”; also see column 10, lines 24-31).

As to claim 12, Bentley et al. as modified, teaches wherein steps (a) and (b) are performed subsequent to the initial creation of the design file or drawing file (See Bentley et al., column 2, lines 44-49; column 5, lines 18-23), the method further comprising: (d) updating the project database with the current inventory of the contents of the design file or drawing file (See Bentley et al., column 2, lines 44-65; column 8, lines 21-26).

As to claim 20, Bentley et al. teaches algorithmically combining the arbitrary vendor identification number and the arbitrary generic building component identification number to obtain a unique building component identification number for each building component (See abstract; column 2, lines 44-49; column 5, lines 18-23; column 15, lines 17-29; column 16, lines 42-50, lines 55-59; column 25, lines 28-32).

Bentley et al. does not teach a method of encoding building components with unique identification numbers, each building component being associated with a specific vendor; assigning an arbitrary vendor identification number to each of vendor of building components; and assigning an arbitrary generic building component identification number to each physically unique building component.

Freeman teaches materials and supplies ordering system (See abstract), in which he teaches a method of encoding building components with unique identification numbers, each building component being associated with a specific vendor (See abstract; column 1, lines 5-7; column 2, lines 7-13); assigning an arbitrary vendor identification number to each of vendor of building components (See abstract; column 1, lines 5-7; column 2, lines 7-13); and assigning an arbitrary generic building component identification number to each physically unique building component (See column 6, lines 43-47, where "attributes" is read on "material name or description").

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Bentley et al., to include a method of encoding building components with unique identification numbers, each building component being associated with a specific vendor; assigning an arbitrary vendor identification number to each of vendor of building components; and assigning an arbitrary generic building component identification number to each physically unique building component.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bentley et al., by the teachings of Freeman

because a method of encoding building components with unique identification numbers, each building component being associated with a specific vendor; assigning an arbitrary vendor identification number to each of vendor of building components; and assigning an arbitrary generic building component identification number to each physically unique building component would open the opportunity for a more advanced and efficient means to order supply materials from large merchants for construction projects (See Freeman, column 1, lines 65-67).

As to claim 21, Bentley et al. as modified, teaches wherein the algorithmic combination is a concatenation of the vendor identification number and the generic component identification number (See Bentley et al., abstract; column 2, lines 44-49; column 5, lines 18-23; column 15, lines 17-29; also see Freeman, abstract; column 1, lines 5-8; column 6, lines 43-47).

As to claim 22, Bentley et al. as modified, teaches wherein the algorithmic combination is a concatenation of a hexadecimal equivalent of the vendor identification number and a hexadecimal equivalent of the generic component identification number, with additional hexadecimal checksum digits, thereby creating an encoded version of a unique building component identification number for each building component (See Bentley et al., column 16, lines 42-50, lines 55-59; column 25, lines 28-32; also see Freeman, abstract; column 1, lines 5-8; column 6, lines 43-47).

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bentley et al. (U.S. Patent No. 6,341,291) in view of Freeman (U.S. Patent No. 6,134,557), as applied to claims 1-5, 8-12, and 20-22 above, and further in view of Teene (U.S. Patent No. 6,272,668).

As to claim 6, Bentley et al. as modified teaches the unique building component identifier is stored in a comment field of the cell file (See Bentley et al., abstract; column 1, line 67; column 2, lines 1-7).

Bentley et al. as modified, still does not teach wherein each building component data element is a cell file.

Teene teaches a method for cell swapping to improve pre-layout timing, in which he teaches wherein each building component data element is a cell file (See abstract; column 1, lines 20-26).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Bentley et al. as modified, to include wherein each building component data element is a cell file.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bentley et al. as modified, by the teachings of Teene because wherein each building component data element is a cell file would terminate with the optimum design possible given the set of equivalent components supplied in the standard cell library (See Teene , column 6, lines 35-40).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bentley et al. (U.S. Patent No. 6,341,291) in view of Freeman (U.S. Patent No. 6,134,557), as applied to claims 1-5, 8-12, and 20-22 above, and further in view of Subler et al. (U.S. Patent No. 5,646,992).

As to claim 7, Bentley et al. as modified, does not teach wherein each building component data element is defined by a drag and drop component.

Subler et al., teaches assembly, distribution, and use of digital information (See abstract), in which he teaches wherein each building component data element is defined by a drag and drop component (See column 13, lines 29-32).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Bentley et al. as modified, to include wherein each building component data element is defined by a drag and drop component.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bentley et al. as modified, by the teachings of Subler et al. because wherein each building component data element is defined by a drag and drop component would allow the publisher to provide a large number and wide variety of items to a user, permitting the user to easily browse and preview the items, giving the user the opportunity to pick and pay for only those items of interest (See Subler et al., column 3, lines 29-32).

6. Claims 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bentley et al. (U.S. Patent No. 6,341,291) in view of Burns et al. (U.S. Patent No. 5,189,606).

As to claim 13, Bentley et al. teaches maintaining a project database (See abstract; column 4, lines 64-67; column 5, lines 1-3, lines 46-55) that contains:

(i) the contents of the building components in a design file or drawing file of the project (See abstract; column 4, lines 64-67; column 5, lines 1-3, lines 46-55).

Bentley et al. does not teach a computer-implemented method of creating projects that comply with building codes of a geographic location of the project, the building codes of a plurality of geographic locations being stored in a database of rules, each project including a plurality of building components, at least some of the building components being stored in a library of building components and having building code-related data associated therewith; a geographic identifier that represents the geographic location of the project represented by the design file or drawing file; using the geographic identifier, the database of rules for the geographic location, and the building code-related data to identify which building components in the library comply with the building code for the geographic location of the project; and creating a library subset of selectable building components from the identified building components, wherein a user's selection of building components for the design file or drawing file from the library is limited to the library subset.

Burns et al. teaches totally integrated construction cost estimating, analysis, and reporting system (See abstract), in which he teaches a computer-implemented method

of creating projects that comply with building codes of a geographic location of the project (See column 3, lines 65-67; column 4, lines 1-2, where "building codes" is read on "knowledge bases"), the building codes of a plurality of geographic locations being stored in a database of rules (See column 59, lines 61-65), each project including a plurality of building components, at least some of the building components being stored in a library of building components and having building code-related data associated therewith (See column 4, lines 45-68);

(ii) a geographic identifier that represents the geographic location of the project represented by the design file or drawing file (See column 4, lines 45-49; column 24, lines 24-35, where "identifier" is read on "location code");

(b) using the geographic identifier (See column 24, lines 24-35), the database of rules for the geographic location, and the building code-related data to identify which building components in the library comply with the building code for the geographic location of the project (See column 4, lines 45-68); and

(c) creating a library subset of selectable building components from the identified building components, wherein a user's selection of building components for the design file or drawing file from the library is limited to the library subset (See column 33, lines 39-43; column 36, lines 15-17).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Bentley et al., to include a computer-implemented method of creating projects that comply with building codes of a geographic location of the project, the building codes of a plurality of geographic

locations being stored in a database of rules, each project including a plurality of building components, at least some of the building components being stored in a library of building components and having building code-related data associated therewith; a geographic identifier that represents the geographic location of the project represented by the design file or drawing file; using the geographic identifier, the database of rules for the geographic location, and the building code-related data to identify which building components in the library comply with the building code for the geographic location of the project; and creating a library subset of selectable building components from the identified building components, wherein a user's selection of building components for the design file or drawing file from the library is limited to the library subset.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bentley et al., by the teachings of Burns et al. because a computer-implemented method of creating projects that comply with building codes of a geographic location of the project, the building codes of a plurality of geographic locations being stored in a database of rules, each project including a plurality of building components, at least some of the building components being stored in a library of building components and having building code-related data associated therewith; a geographic identifier that represents the geographic location of the project represented by the design file or drawing file; using the geographic identifier, the database of rules for the geographic location, and the building code-related data to identify which building components in the library comply with the building code for the geographic location of the project; and creating a library subset of selectable building

Art Unit: 2175

components from the identified building components, wherein a user's selection of building components for the design file or drawing file from the library is limited to the library subset would create a comprehensive cost estimating computer system for construction projects all over the country, and even all over the world (See Burns et al., column 1, lines 20-26).

As to claims 14 and 18, Bentley et al. as modified, teaches wherein the geographic identifier is a zip code (See Burns et al., column 4, lines 45-49; column 24, lines 24-35, where "identifier" is read on "location code").

As to claim 15, Bentley et al. teaches maintaining a project database that includes the contents of the building components in a design file or drawing file of the project (See abstract; column 4, lines 64-67; column 5, lines 1-3, lines 46-55).

Bentley et al. does not teach a computer-implemented method of checking projects for compliance with building codes of a plurality of different geographic locations, the building codes of the geographic locations being stored in a database of rules, each project including a plurality of building components, at least some of the building components being stored in a library of building components and having building code-related data associated therewith; assigning a geographic identifier that represents the geographic location of the project represented by the design file or drawing file; and using the geographic identifier, the database of rules for the geographic location, and the building code-related data to check whether building

components that are in the project database comply with the building code for the geographic location of the project.

Burns et al. teaches totally integrated construction cost estimating, analysis, and reporting system (See abstract), in which he teaches a computer-implemented method of checking projects for compliance with building codes of a plurality of different geographic locations (See column 3, lines 65-67; column 4, lines 1-2), the building codes of the geographic locations being stored in a database of rules (See column 59, lines 61-65), each project including a plurality of building components, at least some of the building components being stored in a library of building components and having building code-related data associated therewith (See column 4, lines 45-68);

(b) assigning a geographic identifier that represents the geographic location of the project represented by the design file or drawing file (See column 4, lines 45-49; column 24, lines 24-35, where "identifier" is read on "location code"); and

(c) using the geographic identifier (See column 24, lines 24-35), the database of rules for the geographic location, and the building code-related data to check whether building components that are in the project database comply with the building code for the geographic location of the project (See column 8, lines 37-54).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Bentley et al., to include a computer-implemented method of checking projects for compliance with building codes of a plurality of different geographic locations, the building codes of the geographic locations being stored in a database of rules, each project including a plurality of

building components, at least some of the building components being stored in a library of building components and having building code-related data associated therewith; assigning a geographic identifier that represents the geographic location of the project represented by the design file or drawing file; and using the geographic identifier, the database of rules for the geographic location, and the building code-related data to check whether building components that are in the project database comply with the building code for the geographic location of the project.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bentley et al., by the teachings of Burns et al. because a computer-implemented method of checking projects for compliance with building codes of a plurality of different geographic locations, the building codes of the geographic locations being stored in a database of rules, each project including a plurality of building components, at least some of the building components being stored in a library of building components and having building code-related data associated therewith; assigning a geographic identifier that represents the geographic location of the project represented by the design file or drawing file; and using the geographic identifier, the database of rules for the geographic location, and the building code-related data to check whether building components that are in the project database comply with the building code for the geographic location of the project would create a comprehensive cost estimating computer system for construction projects all over the country, and even all over the world (See Burns et al., column 1, lines 20-26).

As to claim 16, Bentley et al. as modified, teaches identifying any building components in the project database that do not comply with the building code for the geographic location (See Burns et al., column 8, lines 37-54).

As to claim 17, Bentley et al. teaches a project database (See abstract; column 4, lines 64-67; column 5, lines 1-3, lines 46-55) that contains:

(i) the contents of the building components in a design file or drawing file of the project (See abstract; column 4, lines 64-67; column 5, lines 1-3, lines 46-55).

Bentley et al. does not teach an apparatus for creating projects that comply with building codes of a geographic location of the project, each project including a plurality of building components, at least some of the building components being stored in a library of building components and having building code-related data associated therewith, the apparatus comprising: a geographic identifier that represents the geographic location of the project represented by the design file or drawing file; a rule engine including a database of rules based upon building codes of a plurality of different geographic locations; and a comparator that uses the rule engine and the building code-related data in the database of building components to create a library subset of selectable building components from the identified building components, wherein a user's selection of building components for the design file or drawing file from the library is limited to the library subset.

Burns et al. teaches totally integrated construction cost estimating, analysis, and reporting system (See abstract), in which he teaches an apparatus for creating projects

Art Unit: 2175

that comply with building codes of a geographic location of the project (See column 3, lines 65-67; column 4, lines 1-2, where "building codes" is read on "knowledge bases"), each project including a plurality of building components, at least some of the building components being stored in a library of building components and having building code-related data associated therewith (See column 4, lines 45-68), the apparatus comprising:

(ii) a geographic identifier that represents the geographic location of the project represented by the design file or drawing file (See column 4, lines 45-49; column 24, lines 24-35, where "identifier" is read on "location code");

(b) a rule engine including a database of rules based upon building codes of a plurality of different geographic locations (See column 59, lines 61-65); and

(c) a comparator that uses the rule engine and the building code-related data in the database of building components to create a library subset of selectable building components from the identified building components, wherein a user's selection of building components for the design file or drawing file from the library is limited to the library subset (See column 33, lines 39-43; column 36, lines 15-17).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Bentley et al., to include an apparatus for creating projects that comply with building codes of a geographic location of the project, each project including a plurality of building components, at least some of the building components being stored in a library of building components and having building code-related data associated therewith, the apparatus comprising: a

Art Unit: 2175

geographic identifier that represents the geographic location of the project represented by the design file or drawing file; a rule engine including a database of rules based upon building codes of a plurality of different geographic locations; and a comparator that uses the rule engine and the building code-related data in the database of building components to create a library subset of selectable building components from the identified building components, wherein a user's selection of building components for the design file or drawing file from the library is limited to the library subset.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bentley et al., by the teachings of Burns et al. because an apparatus for creating projects that comply with building codes of a geographic location of the project, each project including a plurality of building components, at least some of the building components being stored in a library of building components and having building code-related data associated therewith, the apparatus comprising: a geographic identifier that represents the geographic location of the project represented by the design file or drawing file; a rule engine including a database of rules based upon building codes of a plurality of different geographic locations; and a comparator that uses the rule engine and the building code-related data in the database of building components to create a library subset of selectable building components from the identified building components, wherein a user's selection of building components for the design file or drawing file from the library is limited to the library subset would create a comprehensive cost estimating computer system for

construction projects all over the country, and even all over the world (See Burns et al., column 1, lines 20-26).

As to claim 19, Bentley et al. teaches a method of searching for a building component in a database of building components (See abstract, column 1, lines 64-67), each building component being represented by (i) a unique building component identifier (See column 1, line 67; column 2, lines 1-3), and (ii) characteristic identification number formed by a string of numbers, each digit or group of digits in the string of numbers representing one characteristic of the building component and having one or more values related to a description of the characteristic (See abstract; column 2, lines 1-3; column 16, lines 42-50).

Bentley et al. does not teach the search engine using the unique building component identifier to locate the corresponding characteristic identification number of the building component; and the search engine using the characteristic identification number to identify other building components that have characteristic identification numbers that match or closely match the entered characteristic descriptions.

Burns et al. teaches totally integrated construction cost estimating, analysis, and reporting system (See abstract), in which he teaches (b) the search engine using the unique building component identifier to locate the corresponding characteristic identification number of the building component (See abstract; column 2, lines 1-3; column 4, lines 64-67; column 5, lines 1-3, lines 46-55); and

(c) the search engine using the characteristic identification number to identify other building components that have characteristic identification numbers that match or closely match the entered characteristic descriptions (See column 3, lines 65-67; column 4, lines 1-2; column 10, lines 13-20).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Bentley et al., to include the search engine using the unique building component identifier to locate the corresponding characteristic identification number of the building component; and the search engine using the characteristic identification number to identify other building components that have characteristic identification numbers that match or closely match the entered characteristic descriptions.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bentley et al., by the teachings of Burns et al. because the search engine using the unique building component identifier to locate the corresponding characteristic identification number of the building component; and the search engine using the characteristic identification number to identify other building components that have characteristic identification numbers that match or closely match the entered characteristic descriptions would create a comprehensive cost estimating computer system for construction projects all over the country, and even all over the world (See Burns et al., column 1, lines 20-26).

Art Unit: 2175

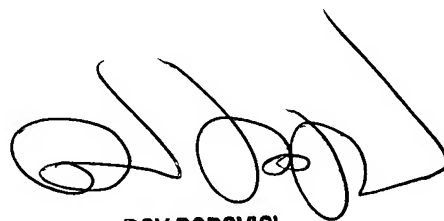
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mellissa M. Chojnacki whose telephone number is 730-305-8769. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Mmc
May 27, 2004

A handwritten signature in black ink, appearing to read 'Dov Popovici', with a stylized, looping design.

DOV POPOVICI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100